

DNA REPORT WRITING-SINGLE SOURCE

A. SCOPE

The laboratory report must communicate both the analytical results and the conclusions of the examiner, conveying the essence of the expert testimony in court. The notes and other documentation must support the conclusions of the examiner. Decisions may be made by police officers, attorneys and the courts based on the report alone without examiner clarification, so the report should be able to stand alone. The report must contain the information required in the Laboratory Quality Assurance Manual and the FBI DNA Quality Assurance Audit Document.

Typical casework reporting should follow the recommended reporting statements, as appropriate. It is recognized that not every situation can be represented by these statements and that it may be necessary to modify the statements to accurately reflect the results.

B. REPORTING STATEMENTS

B.1 SINGLE SOURCE

B.1.1 Note: The statistics reported using all of the following statements should have four significant figures.

Scenario: the questioned sample is a single source and the known sample has the same genotype. The frequency of the matching profile is greater than 1 in 8 trillion in the populations examined (WCSO Database: Caucasian, Hispanic and African American; NIST Database: Caucasian, Hispanic, African American and Asian). The following also applies to a dominant and a minor component of a mixture and a deduced profile.

Reporting Statement: Comparison of DNA profiles showed the DNA profile obtained from the **NAME** reference sample to be the same as the DNA profile obtained from the **EVIDENCE**. The estimated frequency of this matching DNA profile is approximately 1 in **MOST COMMON STATISTIC (e.g. 7.356 quintillion (7.356 x 10¹⁸))** individuals. Based upon these results, it is reasonable to conclude that **NAME** is the source of this DNA profile.

B.1.2 **Scenario:** the questioned samples yield single source profiles and there is a matching full profile and a matching partial profile (matching to the same known sample). The frequencies calculated for the matching profiles are different but both are greater than 1 in 8 trillion in the populations examined (WCSO Database: Caucasian, Hispanic and African American; NIST Database: Caucasian, Hispanic, African American and Asian). The following also applies to dominant and minor components of mixtures and deduced profiles.

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Reporting Statement: Comparison of DNA profiles showed the DNA profile obtained from the **NAME** reference sample to be the same as the DNA profile obtained from the **EVIDENCE 1** and the partial DNA profile obtained from the **EVIDENCE 2**. The estimated frequency of the matching DNA profile obtained from the **EVIDENCE 1** is approximately 1 in **MOST COMMON STATISTIC (e.g. 7.356 quintillion (7.356 x 10¹⁸))** individuals and the estimated frequency of the matching DNA profile obtained from the **EVIDENCE 2** is approximately 1 in **MOST COMMON STATISTIC (e.g. 5.470 quintillion (5.470 x 10¹⁸))** individuals. Based upon these results, it is reasonable to conclude that **NAME** is the source of the DNA profile obtained from **EVIDENCE 1** and the partial DNA profile obtained from **EVIDENCE 2**.

B.1.3 Scenario: the questioned sample is a single source and the known sample has the same genotype. The frequency of the matching profile is greater than 1 in 8 trillion in the populations examined (WCSO Database: Caucasian, Hispanic and African American; NIST Database: Caucasian, Hispanic, African American and Asian).. The following also applies to a dominant and a minor component of a mixture and a deduced profile.

Reporting Statement: Comparison of DNA profiles showed the DNA profile obtained from the **NAME** reference sample to be the same as the DNA profile obtained from the **EVIDENCE**. The estimated frequency of this matching DNA profile is approximately 1 in **MOST COMMON STATISTIC (e.g. 7.356 quintillion (7.356 x 10¹⁸))** individuals. Based upon these results, it is reasonable to conclude that **NAME** is the source of this DNA profile.

B.1.4 Scenario: the questioned sample is a single source and the known sample has the same genotype. The frequency of the matching profile is less than 1 in 8 trillion in the populations examined (WCSO Database: Caucasian, Hispanic and African American; NIST Database: Caucasian, Hispanic, African American and Asian).The following also applies to a dominant and a minor component of a mixture and a deduced profile.

Reporting Statement: Comparison of DNA profiles showed the DNA profile obtained from the **NAME** reference sample to be the same as the **detected/partial** DNA profile obtained from the **EVIDENCE**. The estimated frequency of this matching DNA profile is approximately 1 in **MOST COMMON STATISTIC (7.356 billion (7.356 x 10⁹))** individuals. Based upon these results, **NAME** cannot be excluded as the source of this DNA profile. **NAME** is excluded as the source of the DNA profile obtained from **EVIDENCE**.

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B.1.5 **Scenario:** An individual is excluded as being the source of the DNA profile from an item of evidence.

Reporting Statement: **NAME** is excluded as the source of the DNA profile obtained from **EVIDENCE**.

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